

REMARKS

No claims have been added, canceled, or amended. Accordingly, claims 1-6 remain pending in this application.

Priority

Applicants appreciate the Examiner's acknowledgment of the claim for priority. Submitted herewith is a certified copy of the corresponding Japanese patent application (JP 2003-423464, filed in Japan on December 19, 2003). An indication that this document has been safely received would be appreciated.

35 U.S.C. §112

Claim 4 was rejected under 35 U.S.C. §112, first paragraph as failing to comply with the enabling requirement. In particular, the Office Action contends that the concept of a "fourth identification information" is not taught by the specification, and therefore lacks antecedent basis. It is noted that claim 4 does not contain such a limitation, but claim 3 does at lines 21, 26 and 28. Accordingly, the rejection is addressed as if it had been applied to claim 3.

The fourth information is taught in the discussion of FIG. 10, beginning on page 36, line 13, of the specification, and continuing through page 38, line 22. In particular, claim 3 may encompass a situation in which there is a volume image set containing three volumes, such as volumes 32, 42, and 52 in FIG. 1, wherein a first

volume pair includes volume 32 as a primary volume and volume 42 as a secondary volume, and a second volume pair includes volume 42 as a primary volume and volume 52 as a secondary volume. For example, if volume 32 is no longer to be copied remotely to volume 42, it is also desired that the system stop remote copy from volume 42 to volume 52.

Accordingly, in FIG. 10, the data duplication-controlling portion 11 determines whether or not the copy group decided to be deleted in S808 has a related copy group, by referring to the related/non-related flag 166 (S1001). Then, if it has a related copy group (S1001: YES), the data duplication-controlling portion 11 obtains a copy group number of the related copy group and pair data 167 as a target of the deletion processing (S1002) (page 36, lines 13-20). Furthermore, the data duplication controlling portion 11 obtains a secondary volume of the volume (primary volume) to be deleted (page 36, line 25-page 37, line 2). The data duplication-controlling portion 11 refers to the copy group definition data 16 of the thus obtained copy group number, and obtains pair data 167 in which the secondary volume (copy destination) of the primary volume (copy source) to be deleted is defined as a primary volume (copy source) (page 37, lines 2-8). Thus, the fourth information is the second copy group information that identifies the secondary volume of the first pair as a primary volume in the second pair. According to claim 3, the fourth identification information and identification information of a further copy destination storage medium are deleted from the second duplication definition information (i.e., the second copy group information). Thus, the fourth information of claim 3 is

supported by the specification, and the rejection of claim 3 (4) under 35 U.S.C. §112, first paragraph, is believed to be traversed.

35 U.S.C. § 103

Claims 1-3 and 5-6 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Mimatsu et al. (U.S. Pub. No. 20050010733) in view of Senoh (U.S. Pub. No. 20020078178). Claim 4 stands rejected under 35 U.S.C. §103(a) as being unpatentable over Mimatsu, Senoh and Jeddeloh (U.S. Patent No. 6,363,502). These rejections are traversed as follows.

The Mimatsu Reference is Disqualified Under 35 USC § 103(c)

The Mimatsu et al. application is commonly owned with the present application, falls under the provisions of 35 USC § 103(c), and therefore cannot be used to preclude patentability of the present invention under 35 USC § 103(a). In particular, at the time the present invention was made, both the subject matter of the Mimatsu et al. application and that of the present application were owned by or subject to an obligation of assignment to Hitachi Ltd. of Tokyo, Japan (see, e.g., reel 015288, frame 0577, for the assignment of the Mimatsu et al. application to Hitachi, Ltd., and reel 015062, frame 0349, for the assignment of the present application to Hitachi, Ltd.). Further, it is noted that since the Mimatsu et al. application has a publication date (January 13, 2005) that is after the filing date of the present application (March 17, 2004), the Mimatsu et al. application would only qualify as

prior art under subsections (e), (f) or (g) of 35 USC § 102 if those sections were applicable. It is further noted that both the present application and the Mimatsu et al. application were filed after November 29, 1999. Accordingly, as the provisions of 35 USC § 103(c) apply, the Mimatsu et al. application is disqualified as prior art, and the rejections of claims 1-6 are traversed since the Mimatsu reference was the primary reference in the rejection of all these claims. This being the case, claims 1-6 are allowable over the art of record.

Conclusion

In view of the foregoing amendments and remarks, Applicants contend that the above-identified application is now in condition for allowance. Accordingly, reconsideration of the claims is respectfully requested.

Respectfully submitted,

A handwritten signature in black ink, appearing to read 'Colin D. Barnitz', with a stylized flourish at the end.

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Date: May 3, 2006